



TEST REPORT

Application No.: GZCR2210001367AT
Applicant: Harman International Industries, Inc
Address of Applicant: 8500 Balboa Boulevard, Northridge, California, 91329, United States
Manufacturer: Harman International Industries, Inc
Address of Manufacturer: 8500 Balboa Boulevard, Northridge, California, 91329, United States
Factory: Charter Media (Dongguan) Co., Ltd.
Address of Factory: Dabandi Industrial Zone, Daning District, Humen Town, 523930 Dongguan City, Guangdong, China

Equipment Under Test (EUT):

EUT Name: Gaming Wireless Headset
Model No.: QUANTUM910WIRELESS, QUANTUM910P CONSOLE WIRELESS, QUANTUM910X WIRELESS FOR XBOX ♣

♣

Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

Trade Mark: JBL
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2022-11-02
Date of Test: 2022-11-03 to 2022-11-03
Date of Issue: 2022-11-04

Test Result:	Pass*
---------------------	--------------

* In the configuration tested, the EUT complied with the standards specified above.

Kobe Jian
EMC Laboratory Manager



Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2022-11-04		Original

Authorized for issue by				
				
		Curry Wu/Project Engineer		
				
		Ricky Liu/Reviewer		

2 Test Summary

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.9.1.3	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass
Radiated Spurious Emissions (Below 1GHz)		ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions (Above 1GHz)		ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

Remark:

Model No.: QUANTUM910WIRELESS, QUANTUM910P CONSOLE WIRELESS, QUANTUM910X WIRELESS FOR XBOX

This test report (Ref. No.: GZCR221000136701) is only valid with the original test report (Ref. No.: GZCR220600071101).

Compared with the original report, this report just added the model No and changed the MCU of U2 (Audio switch MCU) and U20(Tracking sensor IC).

According to the declaration from the applicant, the models in this report and models in original report were identical, only difference on model No., color, MCU of U2 (Audio switch MCU) and U20(Tracking sensor IC).

Considering to the difference, pre-scan were performed on the sample in this report to find the items which can be influential to the result in the original test report for fully retest.

Therefore in this report Conducted Peak Output Power, Radiated Spurious Emissions (Below 1GHz) and Radiated Spurious Emissions (Above 1GHz) were fully retested on model QUANTUM910X WIRELESS FOR XBOX and shown the data in this report, other tests data please refer to original report GZCR220600071101.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch EMC Laboratory

No.198 Kezhu Road, Sciotech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

3 Contents

	Page
1 Cover Page	1
2 Test Summary.....	3
3 Contents	4
4 General Information.....	5
4.1 Details of E.U.T.	5
4.2 Description of Support Units.....	5
4.3 Measurement Uncertainty	6
4.4 Test Location	7
4.5 Test Facility.....	7
4.6 Deviation from Standards.....	7
4.7 Abnormalities from Standard Conditions	7
5 Equipment List	8
6 Radio Spectrum Matter Test Results	10
6.1 Conducted Peak Output Power	10
6.1.1 E.U.T. Operation	10
6.1.2 Test Mode Description	10
6.1.3 Test Setup Diagram	11
6.1.4 Measurement Procedure and Data.....	11
6.2 Radiated Spurious Emissions (Below 1GHz)	12
6.2.1 E.U.T. Operation	12
6.2.2 Test Mode Description	12
6.2.3 Test Setup Diagram	13
6.2.4 Measurement Procedure and Data.....	13
6.3 Radiated Spurious Emissions (Above 1GHz).....	20
6.3.1 E.U.T. Operation	20
6.3.2 Test Mode Description	20
6.3.3 Test Setup Diagram	21
6.3.4 Measurement Procedure and Data.....	22
7 Test Setup Photo.....	35
8 EUT Constructional Details (EUT Photos).....	36
9 Appendix.....	37



4 General Information

4.1 Details of E.U.T.

Power supply: Rechargeable battery: 3.7V 1300mAh (Charged by adapter)
Cable(s): Aux in cable: 1.25m unshielded
USB cable: 2.2m shielded
Calibration Microphone cable: 0.49m unshielded

BT

Operation Frequency: 2402MHz to 2480MHz
Bluetooth Version: V5.2 Classic
Modulation Type: GFSK, pi/4DQPSK
Number of Channels: 79
Channel Spacing: 1MHz
Spectrum Spread Technology: Frequency Hopping Spread Spectrum(FHSS)
Antenna Type: Integral Antenna
Antenna Gain: 1.4dBi

2.4G property

Operation Frequency: 2402MHz to 2480MHz
Modulation Type: GFSK, pi/4DQPSK
Number of Channels: 79
Channel Spacing: 1MHz
Spectrum Spread Technology: Frequency Hopping Spread Spectrum(FHSS)
Antenna Type: Integral Antenna
Antenna Gain: 2.0dBi

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	SAMSUNG	EP-TA200	PFTA200



4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Peak Output Power	$\pm 0.75\text{dB}$
Radiated Spurious Emissions (Below 1GHz)	$\pm 5.00\text{dB}$ (30MHz-1GHz; 3m); $\pm 4.38\text{dB}$ (30MHz-1GHz; 10m);
Radiated Spurious Emissions (Above 1GHz)	$\pm 5.12\text{dB}$ (1GHz-6GHz); $\pm 5.38\text{dB}$ (6GHz-18GHz); $\pm 5.61\text{dB}$ (18GHz-40GHz)
Remark: The U_{lab} (lab Uncertainty) is less than U_{CISPR} (CISPR Uncertainty), so the test results – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.	

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

- **ISED (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

- **VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

5 Equipment List

Conducted Peak Output Power					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2022-05-16	2023-05-15
EXA Signal Analyzer (10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2022-09-08	2023-09-07
6dB Attenuator	HP	8491A	EMC2062	2022-03-29	2023-03-28
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01
Test Software	TST	V2.0	GZE100-78	N/A	N/A

Radiated Spurious Emissions (Below 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver(10Hz- 26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16
Chamber cable	HangTianXing	N/A	EMC0542	2022-08-24	2023-08-23
Trilog Broadband Antenna(25MHz-1GHz)- Lab	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2022-02-21	2025-02-21
Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2022-06-21	2023-06-20
Active Loop Antenna- RED	ETS-Lindgren	6502	EMC2190	2022-04-06	2024-04-05
High Pass Filter (915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2021-12-17	2022-12-16
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2022-10-16	2025-10-15
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
EMI Test Receiver(1Hz- 8GHz)	Rohde & Schwarz	ESW8	EMC2220	2022-05-20	2023-05-19

Radiated Spurious Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver (20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2022-08-24	2024-08-23
Horn Antenna(1GHz- 18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2022-09-21	2025-09-20
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-12-17	2022-12-16
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-12-17	2022-12-16
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

MXE EMI Receiver (10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2022-10-21	2023-10-20
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2022-07-29	2023-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2022-08-24	2023-08-23

General used equipment

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2022-06-24	2023-06-23
DMM	Fluke	73	EMC0007	2022-06-24	2023-06-23



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

6 Radio Spectrum Matter Test Results

6.1 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)

Test Method: ANSI C63.10 (2013) Section 11.9.1.3

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥50 hopping channels
	0.25 for 25≤ hopping channels <50
	1 for digital modulation
2400-2483.5	1 for ≥75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 46.5 % RH Atmospheric Pressure: 1015 mbar

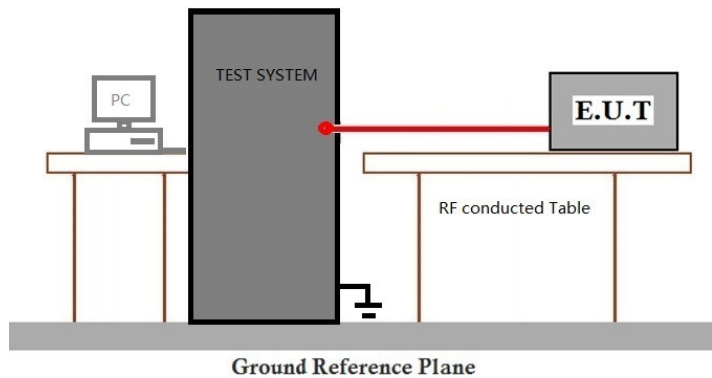
6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode(BT Module)_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	03	TX_non-Hop mode(2.4G Module)_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

6.1.3 Test Setup Diagram



6.1.4 Measurement Procedure and Data

cable loss=0.9dB

Please Refer to Appendix for Details

6.2 Radiated Spurious Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6

Measurement Distance: 10m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 46.5 % RH Atmospheric Pressure: 1015 mbar

6.2.2 Test Mode Description

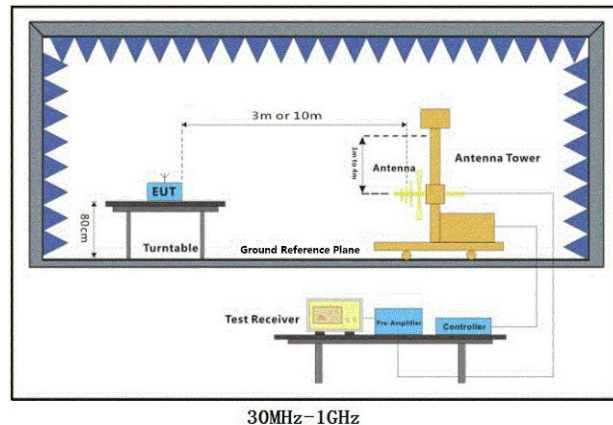
Pre-scan / Final test	Mode Code	Description
Pre-scan	00	TX_non-Hop mode(BT Module)_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	01	Charge + TX_non-Hop mode(BT Module)_Keep the EUT in charging and continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Pre-scan	03	TX_non-Hop mode(2.4G Module)_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	04	Charge + TX_non-Hop mode(2.4G Module)_Keep the EUT in charging and continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

6.2.3 Test Setup Diagram



6.2.4 Measurement Procedure and Data

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- Repeat above procedures until all frequencies measured was complete.

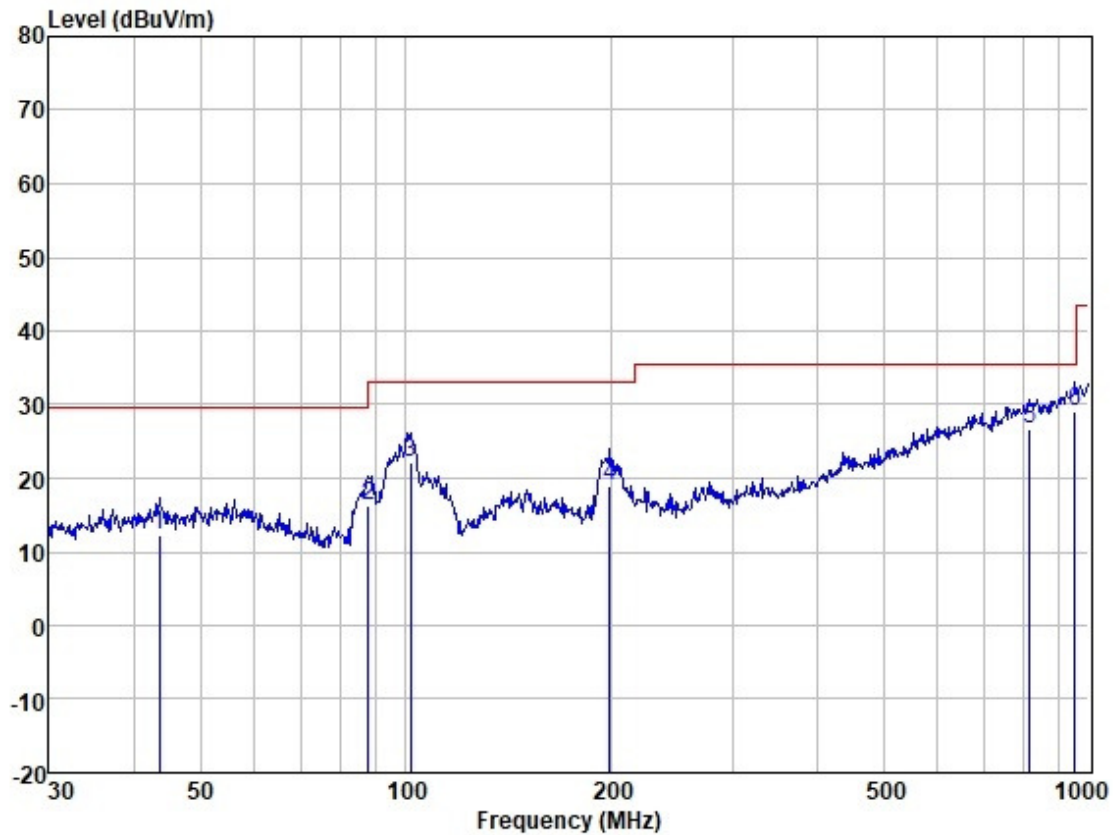
Remark:

- Through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.
- The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

- Scan from 9kHz to 1 GHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

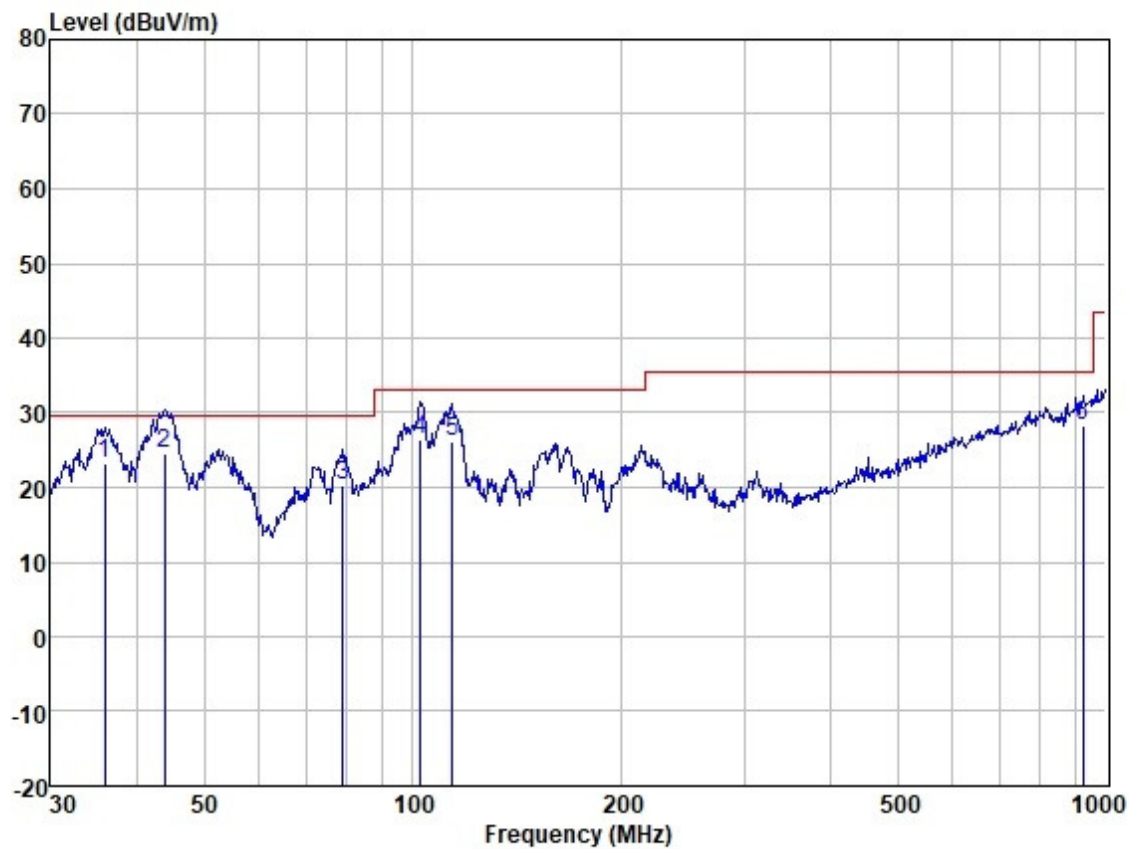
Test Mode: 01; Polarity: Horizontal



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	43.506	24.90	13.82	1.10	27.61	12.21	29.54	-17.33	HORIZONTAL	QP
2	88.033	34.44	7.91	1.57	27.60	16.32	33.06	-16.74	HORIZONTAL	QP
3	101.644	38.87	9.27	1.70	27.60	22.24	33.06	-10.82	HORIZONTAL	QP
4	198.588	33.55	10.13	2.52	27.30	18.90	33.06	-14.16	HORIZONTAL	QP
5	818.834	25.64	23.39	6.11	28.54	26.60	35.56	-8.96	HORIZONTAL	QP
6	952.094	26.19	24.26	6.80	28.09	29.16	35.56	-6.40	HORIZONTAL	QP

Test Mode: 01; Polarity: Vertical



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	35.875	36.55	13.08	1.06	27.62	23.07	29.54	-6.47	VERTICAL	QP
2	43.812	37.18	13.82	1.11	27.61	24.50	29.54	-5.04	VERTICAL	QP
3	79.243	36.95	9.36	1.47	27.60	20.18	29.54	-9.36	VERTICAL	QP
4	102.360	42.95	9.42	1.71	27.60	26.48	33.06	-6.58	VERTICAL	QP
5	114.114	41.23	10.71	1.79	27.57	26.16	33.06	-6.90	VERTICAL	QP
6	925.756	26.30	23.50	6.55	28.16	28.19	35.56	-7.37	VERTICAL	QP

distance,

$$L_3 / L_{10} = D_{10} / D_3$$

Note:

L₃: Level @ 3m distance. Unit: uV/m;

L₁₀: Level @ 10m distance. Unit: uV/m;

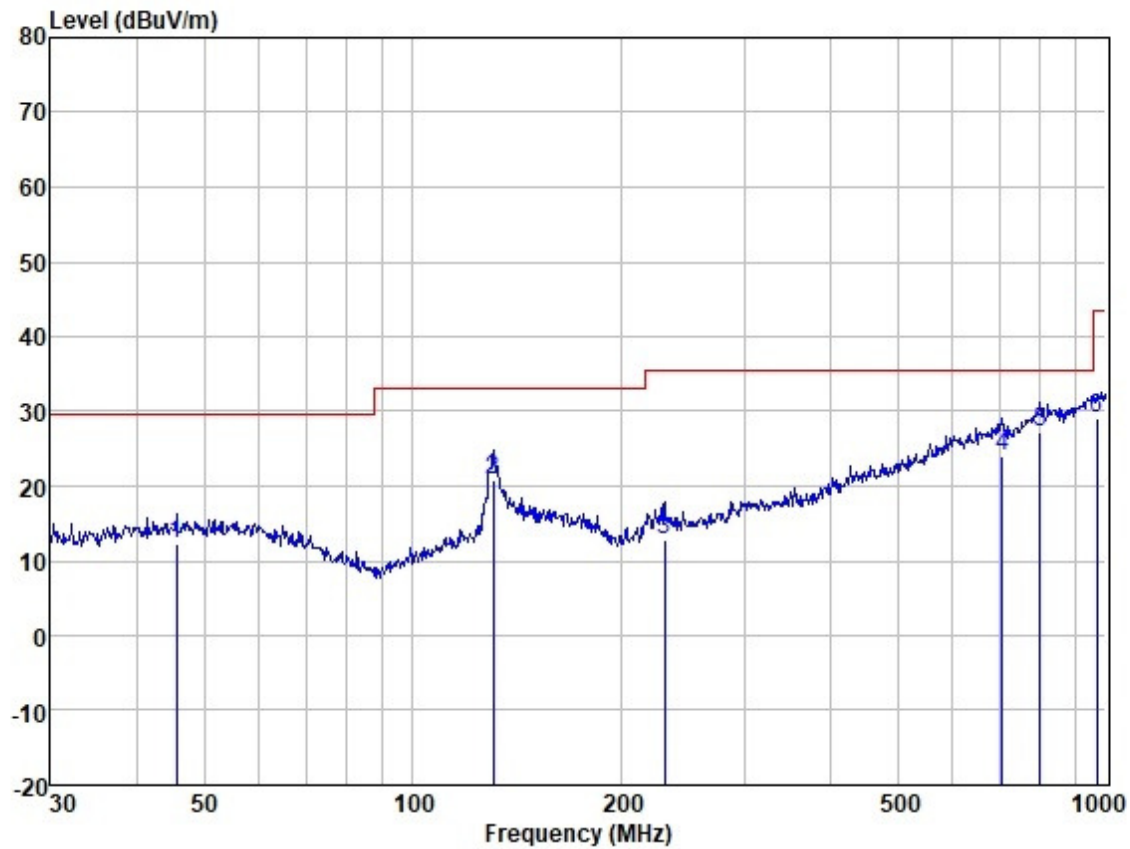
D₃: 3m distance. Unit: m

D₁₀: 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
43.506	12.21	4.08	13.59	22.67	40.00	-17.33	H
88.033	16.32	6.55	21.82	26.78	43.50	-16.72	H
101.644	22.24	12.94	43.14	32.70	43.50	-10.80	H
198.588	18.90	8.81	29.37	29.36	43.50	-14.14	H
818.834	26.60	21.38	71.27	37.06	46.00	-8.94	H
952.094	29.16	28.71	95.69	39.62	46.00	-6.38	H
35.875	23.07	14.24	47.47	33.53	40.00	-6.47	V
43.812	24.50	16.79	55.96	34.96	40.00	-5.04	V
79.243	20.18	10.21	34.03	30.64	40.00	-9.36	V
102.360	26.48	21.09	70.29	36.94	43.50	-6.56	V
114.114	26.16	20.32	67.75	36.62	43.50	-6.88	V
925.756	28.19	25.67	85.58	38.65	46.00	-7.35	V

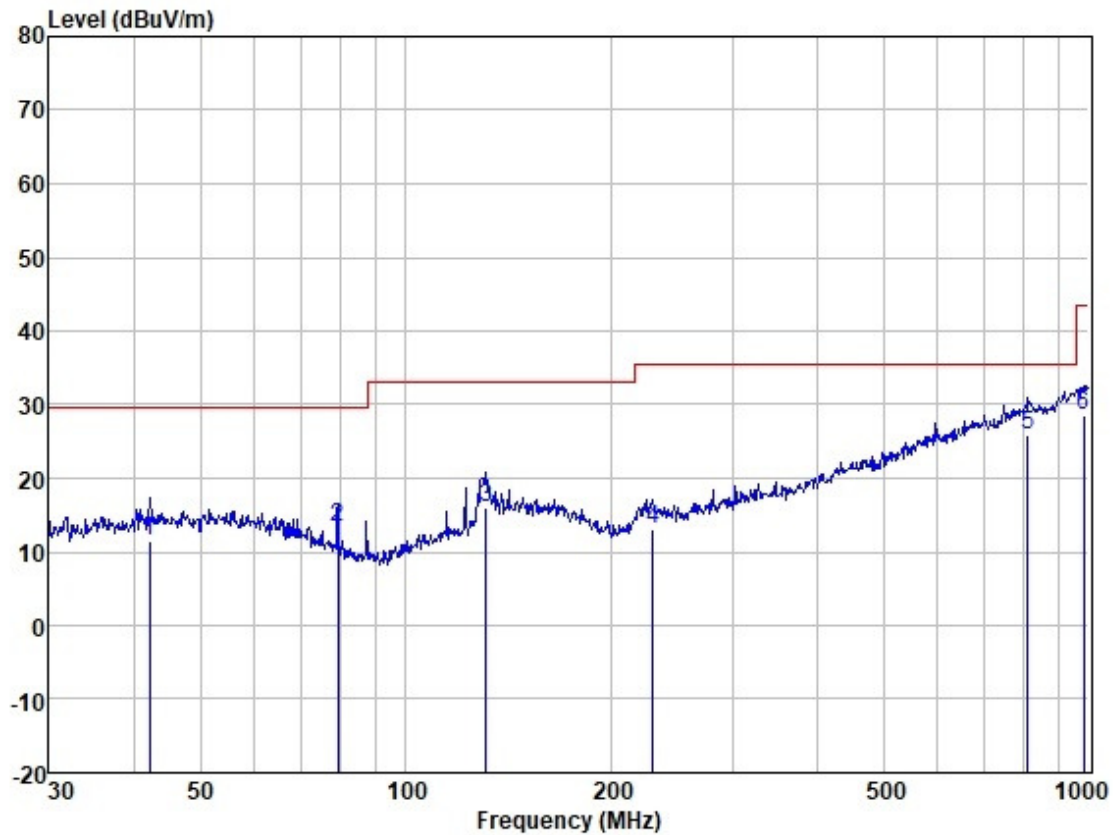
Test Mode: 04; Polarity: Horizontal



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	45.535	24.70	13.93	1.11	27.60	12.14	29.54	-17.40	HORIZONTAL	QP
2	130.379	34.32	12.13	1.95	27.52	20.88	33.06	-12.18	HORIZONTAL	QP
3	230.907	26.39	10.89	2.75	27.28	12.75	35.56	-22.81	HORIZONTAL	QP
4	706.700	25.95	21.25	5.53	28.70	24.03	35.56	-11.53	HORIZONTAL	QP
5	801.786	26.74	22.88	6.04	28.59	27.07	35.56	-8.49	HORIZONTAL	QP
6	968.934	26.00	24.32	6.90	28.05	29.17	43.52	-14.35	HORIZONTAL	QP

Test Mode: 04; Polarity: Vertical



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	42.154	24.17	13.75	1.10	27.61	11.41	29.54	-18.13	VERTICAL	QP
2	79.521	30.04	9.36	1.47	27.60	13.27	29.54	-16.27	VERTICAL	QP
3	130.837	29.25	12.22	1.95	27.52	15.90	33.06	-17.16	VERTICAL	QP
4	230.099	26.84	10.79	2.75	27.28	13.10	35.56	-22.46	VERTICAL	QP
5	813.112	25.10	23.27	6.07	28.56	25.88	35.56	-9.68	VERTICAL	QP
6	982.620	25.28	24.22	7.00	28.02	28.48	43.52	-15.04	VERTICAL	QP

distance,

$$L_3 / L_{10} = D_{10} / D_3$$

Note:

L₃: Level @ 3m distance. Unit: uV/m;

L₁₀: Level @ 10m distance. Unit: uV/m;

D₃: 3m distance. Unit: m

D₁₀: 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
45.535	12.14	4.05	13.49	22.60	40.00	-17.40	H
130.379	20.88	11.07	36.89	31.34	43.50	-12.16	H
230.907	12.75	4.34	14.47	23.21	46.00	-22.79	H
706.700	24.03	15.90	53.01	34.49	46.00	-11.51	H
801.786	27.07	22.57	75.23	37.53	46.00	-8.47	H
968.934	29.17	28.74	95.80	39.63	54.00	-14.37	H
42.154	11.41	3.72	12.40	21.87	40.00	-18.13	V
79.521	13.27	4.61	15.36	23.73	40.00	-16.27	V
130.837	15.90	6.24	20.79	26.36	43.50	-17.14	V
230.099	13.10	4.52	15.06	23.56	46.00	-22.44	V
813.112	25.88	19.68	65.60	36.34	46.00	-9.66	V
982.620	28.48	26.55	88.49	38.94	54.00	-15.06	V

6.3 Radiated Spurious Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
 Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6
 Measurement Distance: 3m
 Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.4 °C Humidity: 46.5 % RH Atmospheric Pressure: 1015 mbar

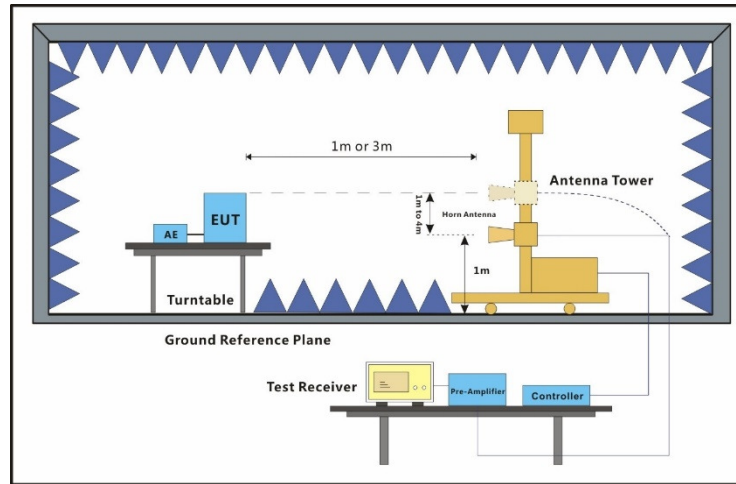
6.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode(BT Module)_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Pre-scan	01	Charge + TX_non-Hop mode(BT Module)_Keep the EUT in charging and continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Final test	03	TX_non-Hop mode(2.4G Module)_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.
Pre-scan	04	Charge + TX_non-Hop mode(2.4G Module)_Keep the EUT in charging and continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
 Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

6.3.3 Test Setup Diagram



6.3.4 Measurement Procedure and Data

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

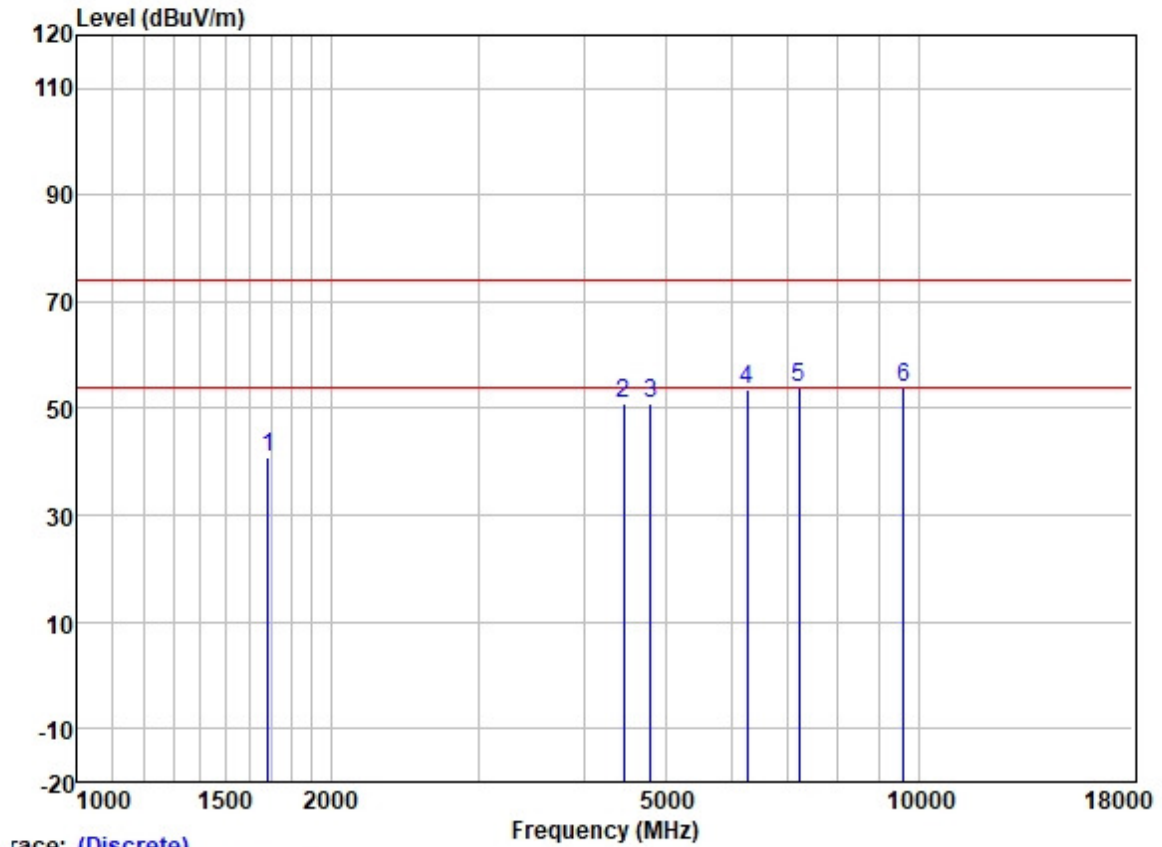
2) Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

3) The field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



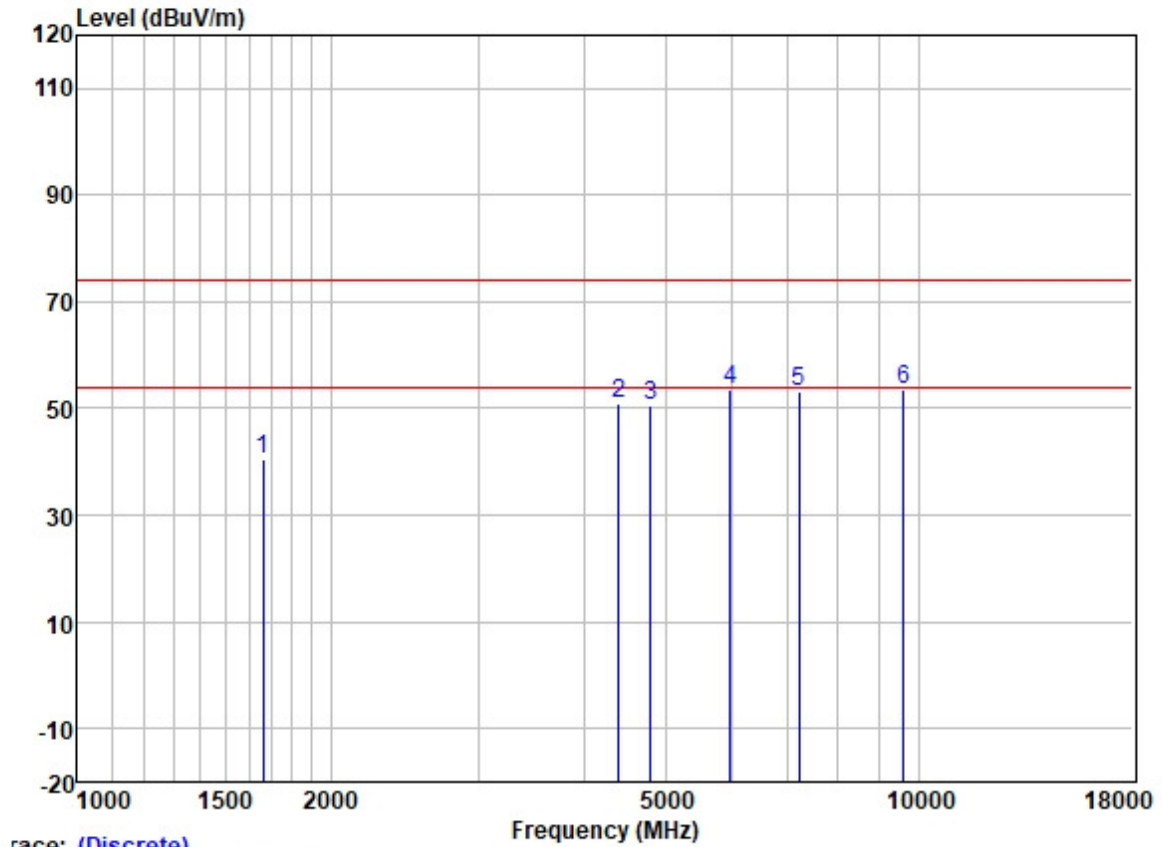
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Test Mode: 00; Polarity: Horizontal; Modulation: GFSK; ; Channel: Low



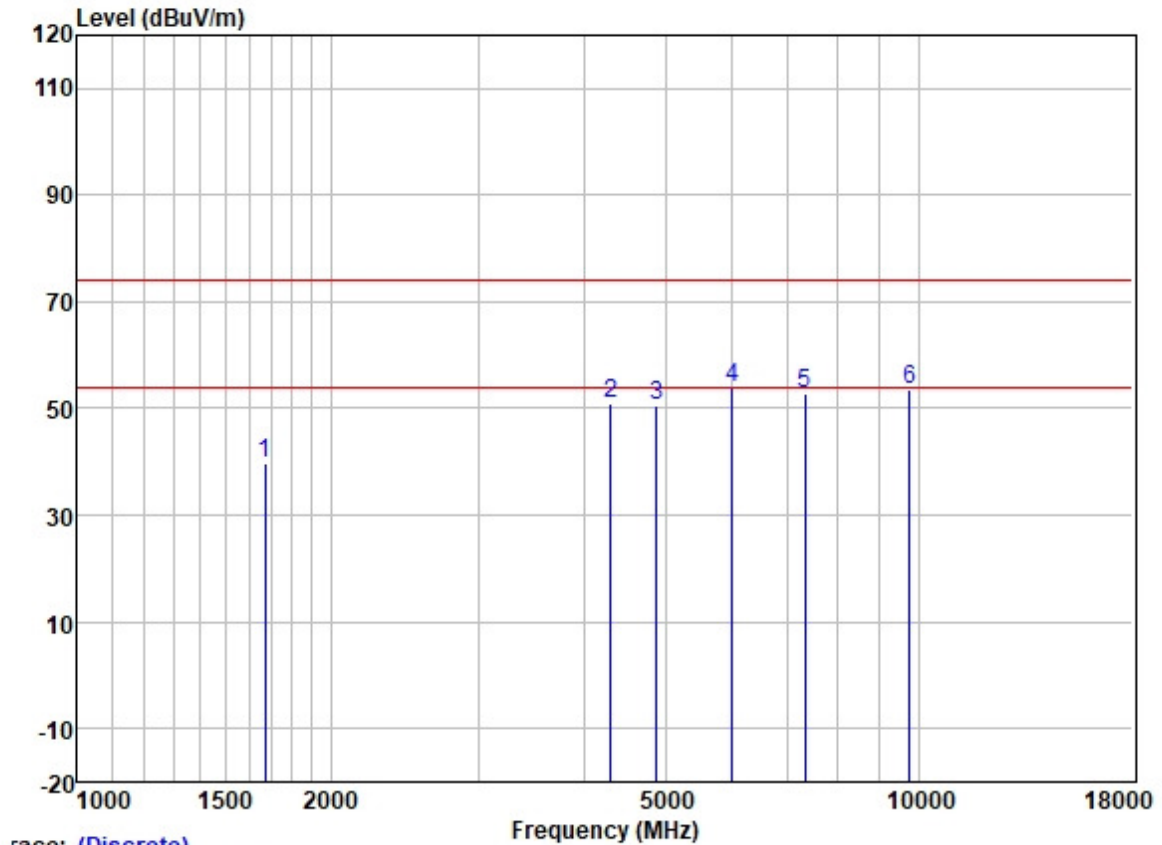
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1687.347	50.23	25.69	2.80	37.91	40.81	74.00	-33.19	HORIZONTAL	Peak
2	4456.315	52.10	30.75	4.88	36.81	50.92	74.00	-23.08	HORIZONTAL	Peak
3	4804.000	50.82	31.42	5.40	36.83	50.81	74.00	-23.19	HORIZONTAL	Peak
4	6249.464	51.16	33.20	6.02	36.95	53.43	74.00	-20.57	HORIZONTAL	Peak
5	7206.000	49.79	35.54	5.98	37.38	53.93	74.00	-20.07	HORIZONTAL	Peak
6	9608.000	45.93	38.37	7.07	37.42	53.95	74.00	-20.05	HORIZONTAL	Peak

Test Mode: 00; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



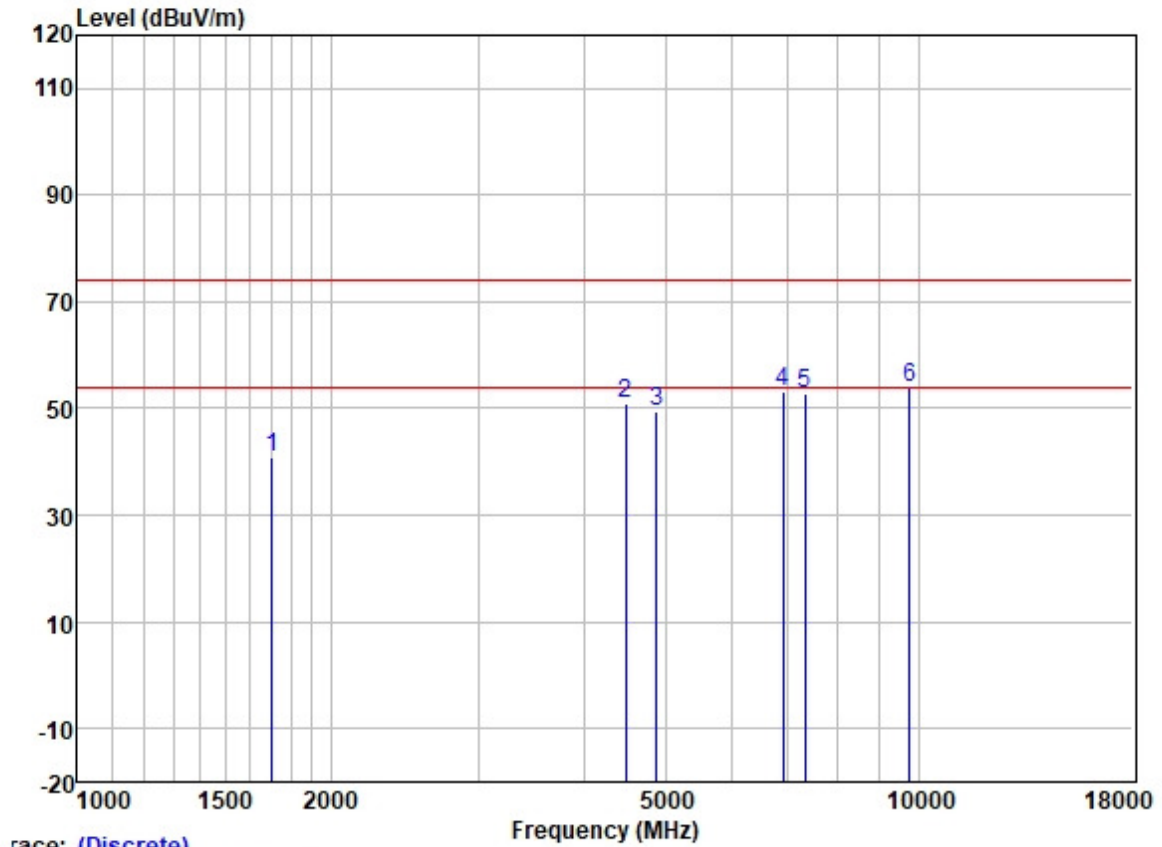
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1663.137	49.94	25.65	2.80	37.91	40.48	74.00	-33.52	VERTICAL	Peak
2	4405.090	52.30	30.68	4.70	36.81	50.87	74.00	-23.13	VERTICAL	Peak
3	4804.000	50.66	31.42	5.40	36.83	50.65	74.00	-23.35	VERTICAL	Peak
4	5967.033	51.89	32.37	6.10	36.90	53.46	74.00	-20.54	VERTICAL	Peak
5	7206.000	49.15	35.54	5.98	37.38	53.29	74.00	-20.71	VERTICAL	Peak
6	9608.000	45.39	38.37	7.07	37.42	53.41	74.00	-20.59	VERTICAL	Peak

Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1672.779	49.15	25.67	2.80	37.91	39.71	74.00	-34.29	HORIZONTAL	Peak
2	4304.400	52.50	30.48	4.65	36.81	50.82	74.00	-23.18	HORIZONTAL	Peak
3	4882.000	50.34	31.56	5.52	36.84	50.58	74.00	-23.42	HORIZONTAL	Peak
4	6001.626	52.22	32.40	6.20	36.90	53.92	74.00	-20.08	HORIZONTAL	Peak
5	7323.000	48.09	36.00	6.13	37.43	52.79	74.00	-21.21	HORIZONTAL	Peak
6	9764.000	45.47	38.50	7.02	37.41	53.58	74.00	-20.42	HORIZONTAL	Peak

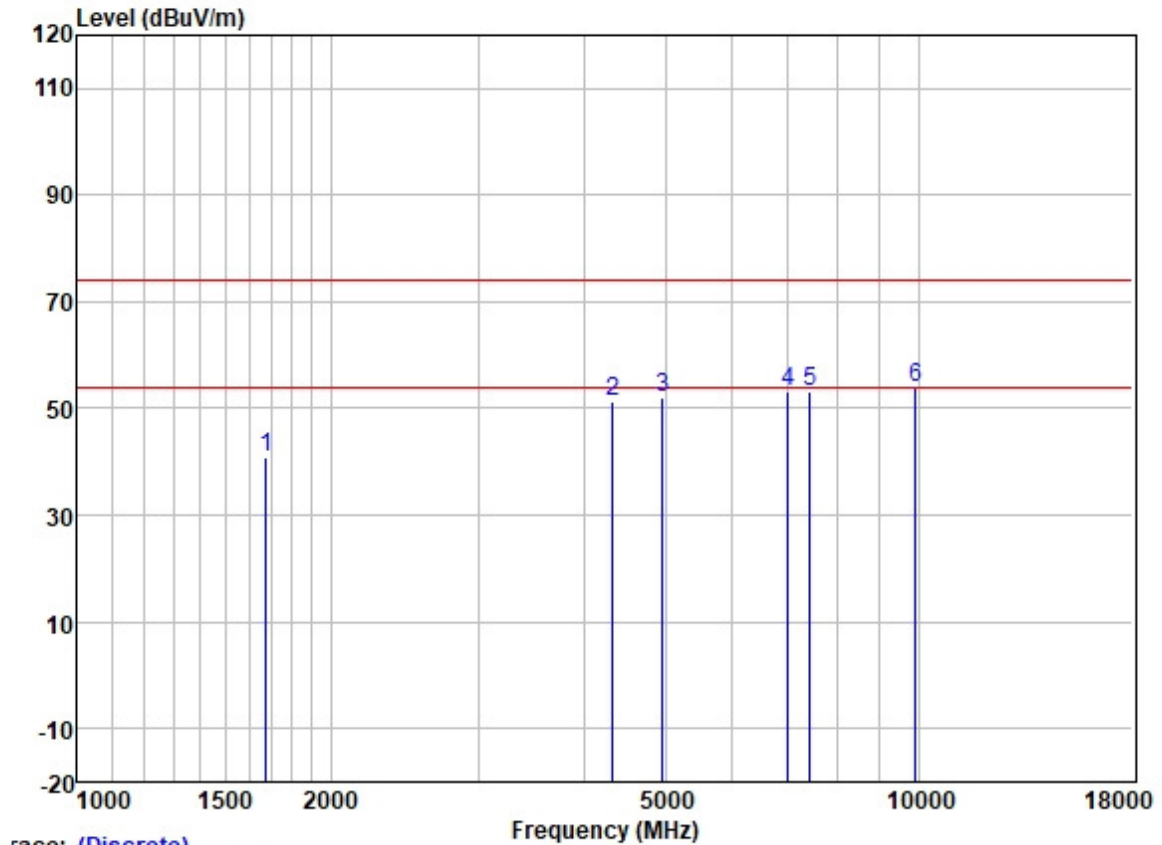
Test Mode: 00; Polarity: Vertical; Modulation: GFSK; ; Channel: middle



race: (Discrete)

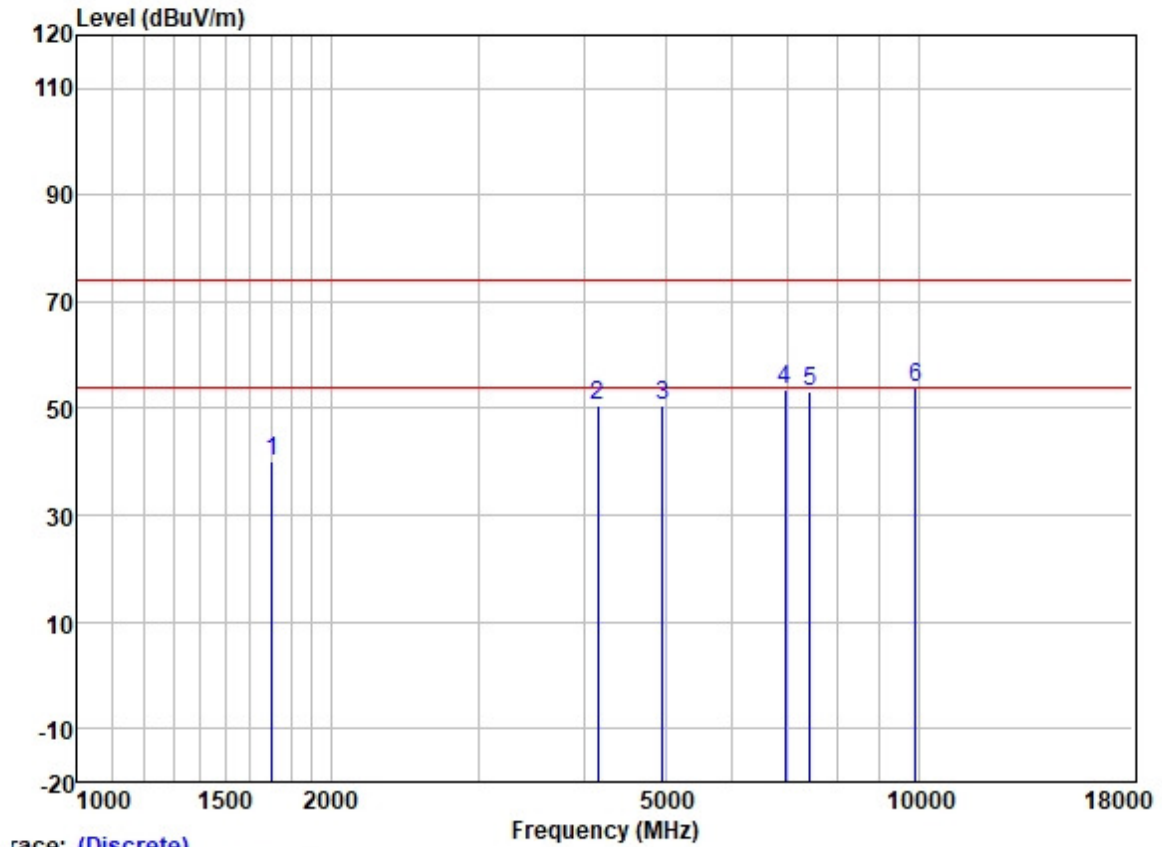
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1702.042	50.36	25.72	2.80	37.89	40.99	74.00	-33.01	VERTICAL	Peak
2	4482.150	52.14	30.78	4.99	36.81	51.10	74.00	-22.90	VERTICAL	Peak
3	4882.000	49.12	31.56	5.52	36.84	49.36	74.00	-24.64	VERTICAL	Peak
4	6894.806	49.80	34.85	5.81	37.18	53.28	74.00	-20.72	VERTICAL	Peak
5	7323.000	48.19	36.00	6.13	37.43	52.89	74.00	-21.11	VERTICAL	Peak
6	9764.000	45.75	38.50	7.02	37.41	53.86	74.00	-20.14	VERTICAL	Peak

Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1677.621	50.12	25.68	2.80	37.91	40.69	74.00	-33.31	HORIZONTAL	Peak
2	4329.354	52.77	30.54	4.67	36.81	51.17	74.00	-22.83	HORIZONTAL	Peak
3	4960.000	51.57	31.65	5.65	36.84	52.03	74.00	-21.97	HORIZONTAL	Peak
4	6995.172	49.71	35.00	5.81	37.25	53.27	74.00	-20.73	HORIZONTAL	Peak
5	7440.000	48.08	36.27	6.22	37.47	53.10	74.00	-20.90	HORIZONTAL	Peak
6	9920.000	45.74	38.65	6.96	37.40	53.95	74.00	-20.05	HORIZONTAL	Peak

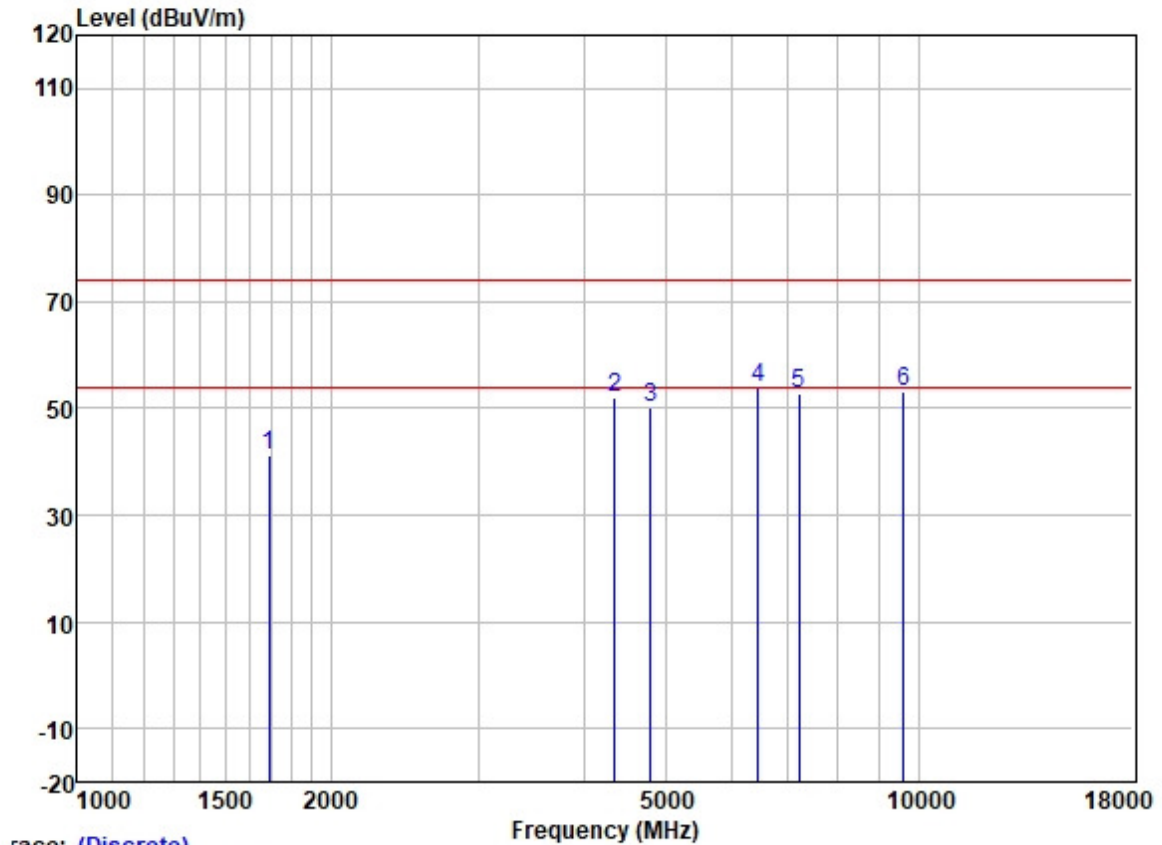
Test Mode: 00; Polarity: Vertical; Modulation:GFSK; ; Channel:High



race: (Discrete)

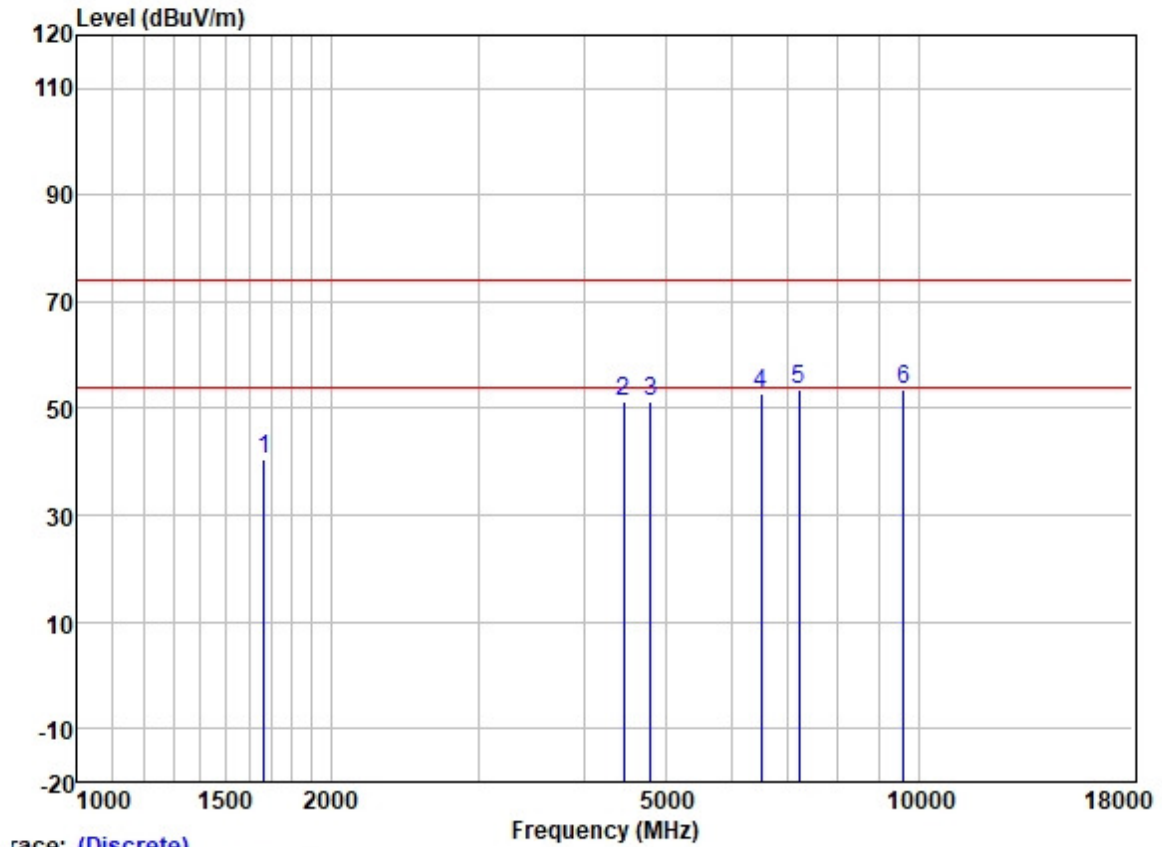
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1702.042	49.63	25.72	2.80	37.89	40.26	74.00	-33.74	VERTICAL	Peak
2	4157.664	52.84	30.06	4.60	36.80	50.70	74.00	-23.30	VERTICAL	Peak
3	4960.000	50.24	31.65	5.65	36.84	50.70	74.00	-23.30	VERTICAL	Peak
4	6934.778	49.90	34.92	5.81	37.19	53.44	74.00	-20.56	VERTICAL	Peak
5	7440.000	48.09	36.27	6.22	37.47	53.11	74.00	-20.89	VERTICAL	Peak
6	9920.000	45.75	38.65	6.96	37.40	53.96	74.00	-20.04	VERTICAL	Peak

Test Mode: 03; Polarity: Horizontal; Modulation: GFSK; ; Channel: Low



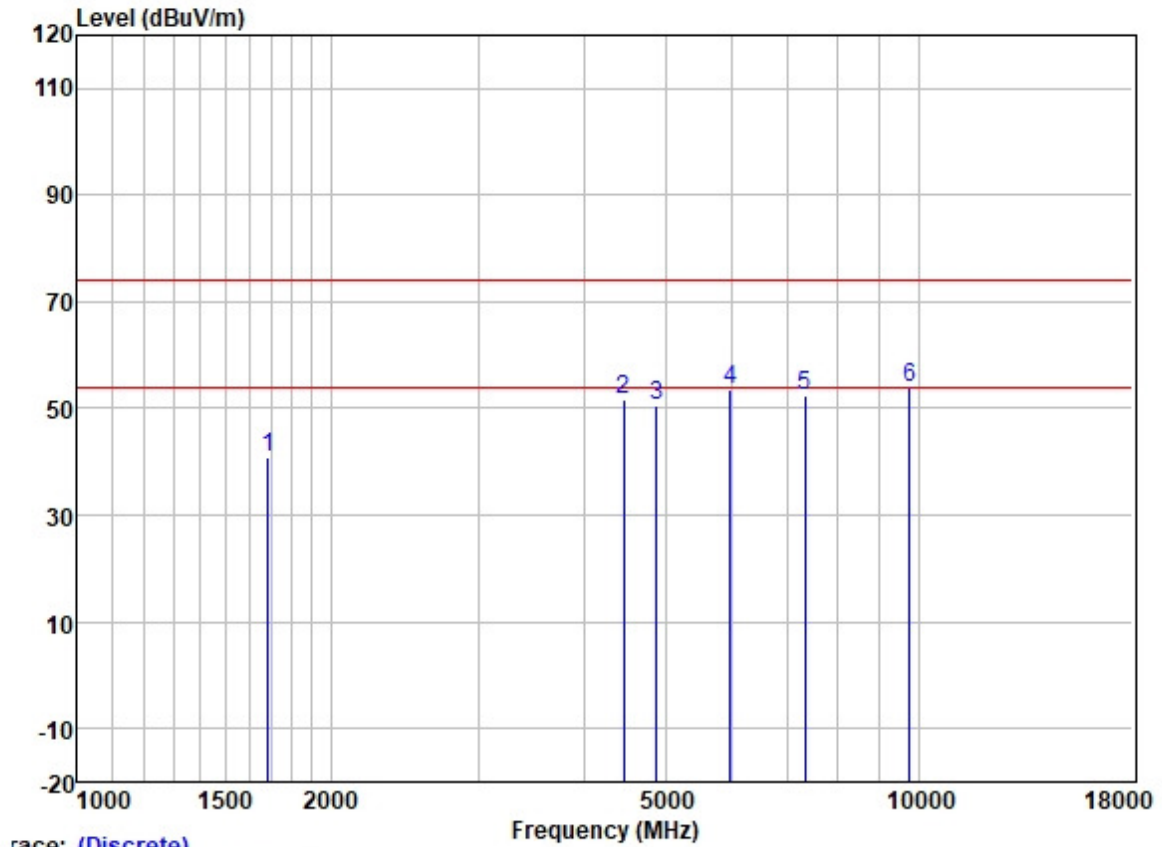
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1692.231	50.64	25.70	2.80	37.89	41.25	74.00	-32.75	HORIZONTAL	Peak
2	4354.454	53.67	30.59	4.68	36.81	52.13	74.00	-21.87	HORIZONTAL	Peak
3	4804.000	50.14	31.42	5.40	36.83	50.13	74.00	-23.87	HORIZONTAL	Peak
4	6451.353	51.10	33.88	5.87	37.00	53.85	74.00	-20.15	HORIZONTAL	Peak
5	7206.000	48.68	35.54	5.98	37.38	52.82	74.00	-21.18	HORIZONTAL	Peak
6	9608.000	45.25	38.37	7.07	37.42	53.27	74.00	-20.73	HORIZONTAL	Peak

Test Mode: 03; Polarity: Vertical; Modulation:GFSK; ; Channel:Low



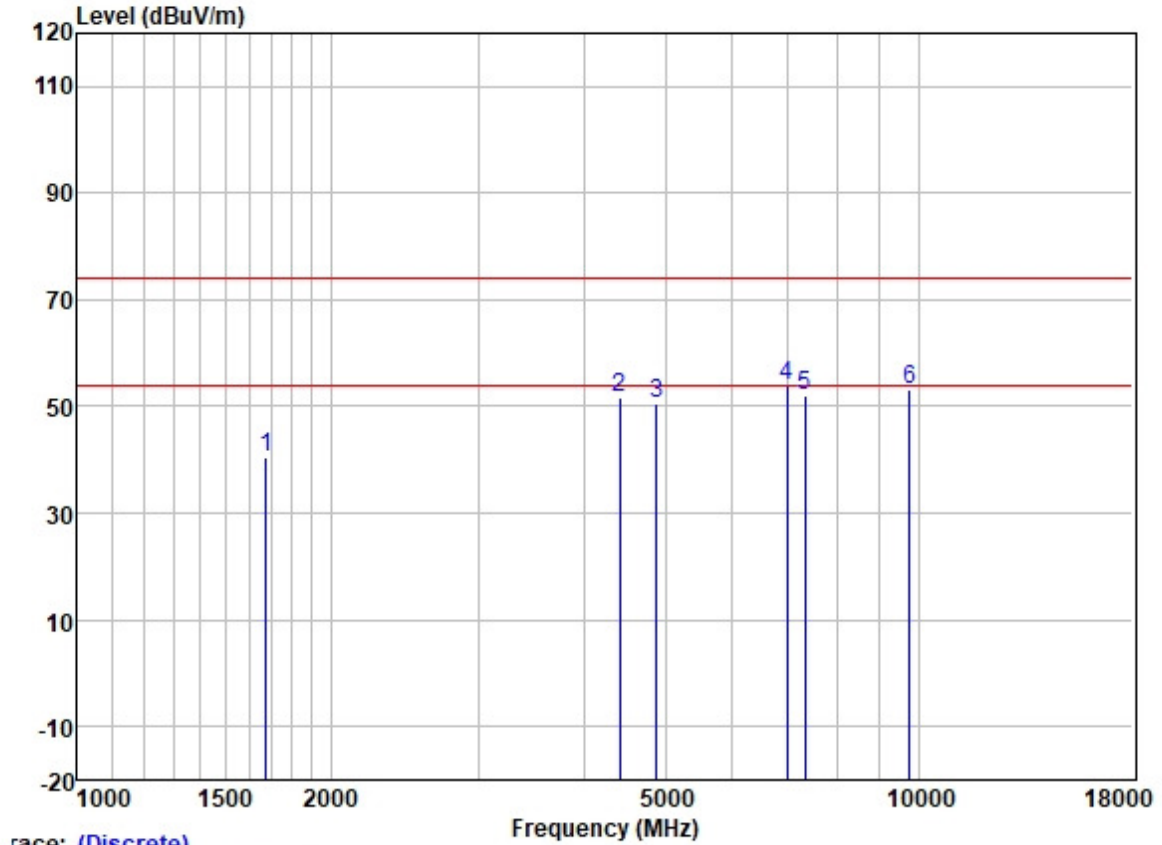
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1667.951	50.06	25.66	2.80	37.91	40.61	74.00	-33.39	VERTICAL	Peak
2	4456.315	52.65	30.75	4.88	36.81	51.47	74.00	-22.53	VERTICAL	Peak
3	4804.000	51.26	31.42	5.40	36.83	51.25	74.00	-22.75	VERTICAL	Peak
4	6507.536	50.15	34.00	5.84	37.01	52.98	74.00	-21.02	VERTICAL	Peak
5	7206.000	49.22	35.54	5.98	37.38	53.36	74.00	-20.64	VERTICAL	Peak
6	9608.000	45.42	38.37	7.07	37.42	53.44	74.00	-20.56	VERTICAL	Peak

Test Mode: 03; Polarity: Horizontal; Modulation:GFSK; ; Channel:middle



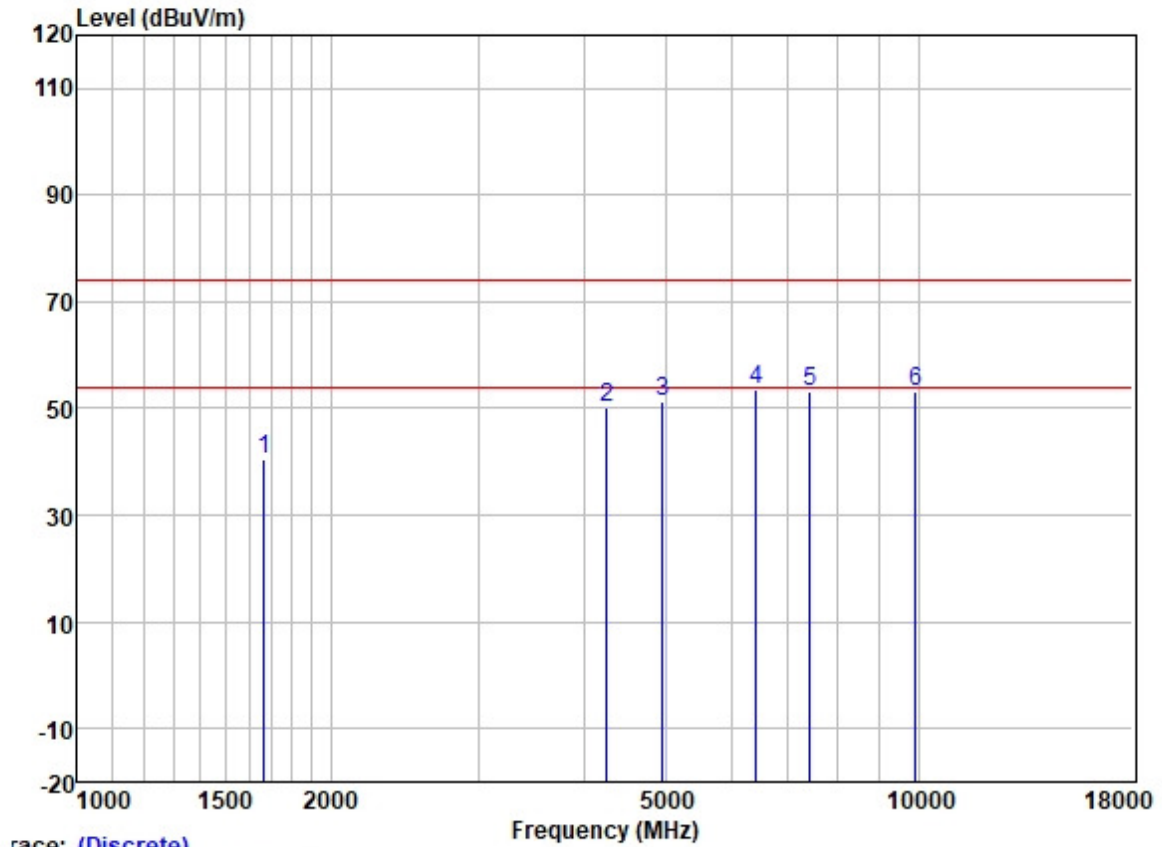
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1687.347	50.45	25.69	2.80	37.91	41.03	74.00	-32.97	HORIZONTAL	Peak
2	4456.315	52.87	30.75	4.88	36.81	51.69	74.00	-22.31	HORIZONTAL	Peak
3	4882.000	50.30	31.56	5.52	36.84	50.54	74.00	-23.46	HORIZONTAL	Peak
4	5967.033	51.83	32.37	6.10	36.90	53.40	74.00	-20.60	HORIZONTAL	Peak
5	7323.000	47.64	36.00	6.13	37.43	52.34	74.00	-21.66	HORIZONTAL	Peak
6	9764.000	45.73	38.50	7.02	37.41	53.84	74.00	-20.16	HORIZONTAL	Peak

Test Mode: 03; Polarity: Vertical; Modulation: GFSK; ; Channel: middle



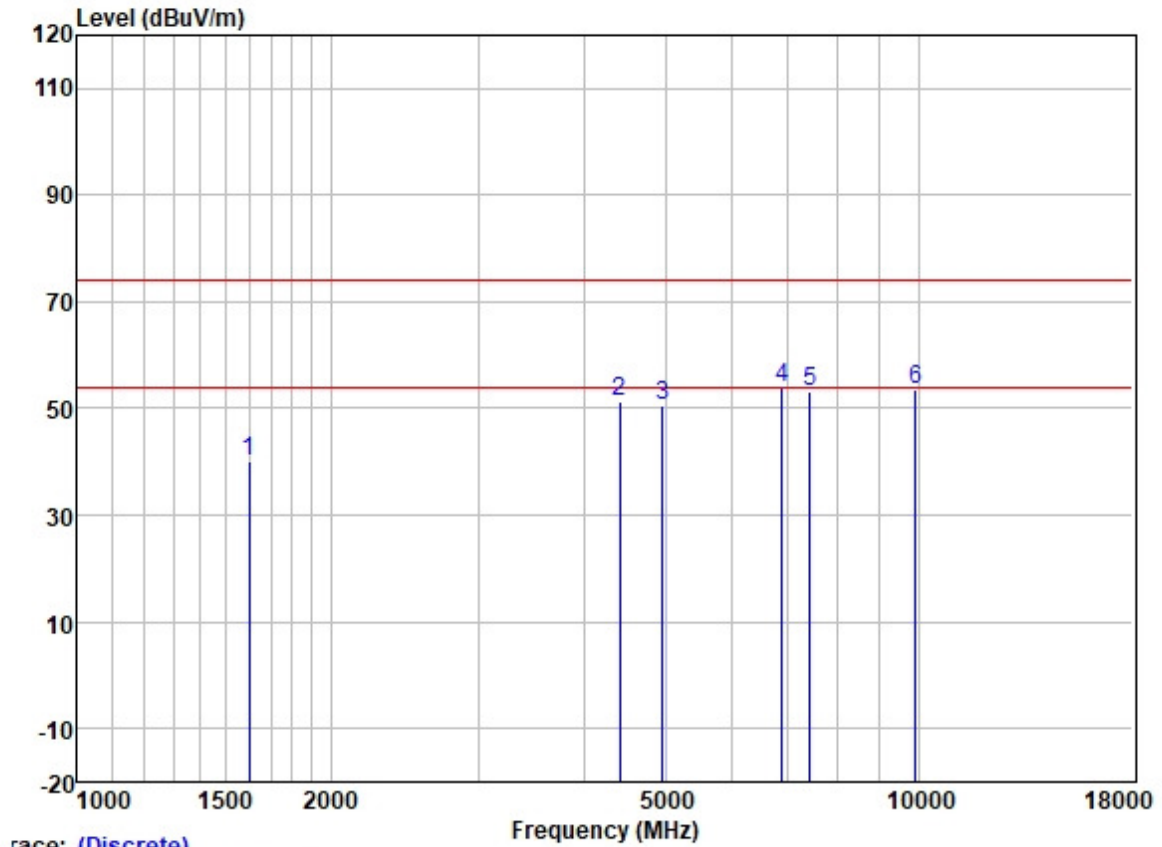
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1677.621	49.80	25.68	2.80	37.91	40.37	74.00	-33.63	VERTICAL	Peak
2	4417.841	52.98	30.70	4.74	36.81	51.61	74.00	-22.39	VERTICAL	Peak
3	4882.000	50.15	31.56	5.52	36.84	50.39	74.00	-23.61	VERTICAL	Peak
4	6974.982	50.34	34.97	5.81	37.23	53.89	74.00	-20.11	VERTICAL	Peak
5	7323.000	47.20	36.00	6.13	37.43	51.90	74.00	-22.10	VERTICAL	Peak
6	9764.000	44.94	38.50	7.02	37.41	53.05	74.00	-20.95	VERTICAL	Peak

Test Mode: 03; Polarity: Horizontal; Modulation:GFSK; ; Channel:High



	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1667.951	49.82	25.66	2.80	37.91	40.37	74.00	-33.63	HORIZONTAL Peak
2	4254.921	52.05	30.34	4.62	36.81	50.20	74.00	-23.80	HORIZONTAL Peak
3	4960.000	50.73	31.65	5.65	36.84	51.19	74.00	-22.81	HORIZONTAL Peak
4	6414.167	50.91	33.79	5.89	36.99	53.60	74.00	-20.40	HORIZONTAL Peak
5	7440.000	48.14	36.27	6.22	37.47	53.16	74.00	-20.84	HORIZONTAL Peak
6	9920.000	44.80	38.65	6.96	37.40	53.01	74.00	-20.99	HORIZONTAL Peak

Test Mode: 03; Polarity: Vertical; Modulation:GFSK; ; Channel:High



	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1601.804	49.67	25.58	2.80	37.98	40.07	74.00	-33.93	VERTICAL	Peak
2	4417.841	52.79	30.70	4.74	36.81	51.42	74.00	-22.58	VERTICAL	Peak
3	4960.000	49.96	31.65	5.65	36.84	50.42	74.00	-23.58	VERTICAL	Peak
4	6874.906	50.35	34.82	5.82	37.16	53.83	74.00	-20.17	VERTICAL	Peak
5	7440.000	48.13	36.27	6.22	37.47	53.15	74.00	-20.85	VERTICAL	Peak
6	9920.000	45.32	38.65	6.96	37.40	53.53	74.00	-20.47	VERTICAL	Peak

7 Test Setup Photo

Refer to Appendix - SetupPhoto for GZCR2210001367AT



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

8 EUT Constructional Details (EUT Photos)

Refer to Appendix – External and Internal Photos for GZCR2210001367AT.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

9 Appendix

For BT Module

1. Maximum Conducted Output Power

1.1 Power

1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	9.90	<=30	Pass
		2441	DH5	9.25	<=30	Pass
		2480	DH5	8.69	<=30	Pass
Pi/4DQPSK	SISO	2402	2DH5	9.94	<=20.97	Pass
		2441	2DH5	9.29	<=20.97	Pass
		2480	2DH5	8.72	<=20.97	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

For 2.4 Module

1. Maximum Conducted Output Power

1.1 Power

1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	8.31	<=30	Pass
		2441	DH5	7.90	<=30	Pass
		2480	DH5	7.73	<=30	Pass
Pi/4DQPSK	SISO	2402	2DH5	8.32	<=20.97	Pass
		2441	2DH5	7.91	<=20.97	Pass
		2480	2DH5	7.74	<=20.97	Pass

- End of the Report -